

Notice of Allowability

Application No.

10/664,146

Examiner

Stephen W. Smoot

Applicant(s)

ZHANG ET AL.

Art Unit

2813

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to applicant's amendment received on 18 October 2004.
2. ☒ The allowed claim(s) is/are 22-35.
3. ☒ The drawings filed on 27 September 2003 and 18 October 2004 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/277,880.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Stephen W. Smoot
Patent Examiner/AU 2813

This Office action is in response to applicant's amendment received on 18 October 2004.

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

2. The application has been amended as follows:

In the Claims:

In claim 22, line 8, change "method of comprising" to --method comprising-- to correct an inadvertent change of the original claim 22; and

In claim 23, line 10, change "and active semiconductor layer" to --an active semiconductor layer-- to correct an inadvertent change of the original claim 23.

3. The replacement drawing sheet corresponding to Figs. 8A-8D was received on 18 October 2004. These drawings are acceptable.

Art Unit: 2813

4. Claims 22-35 are allowed.
5. The following is an examiner's statement of reasons for allowance:
 - Claims 22-27 are allowed because the prior art of record does not teach or suggest, in combination with the other claim limitations, a method of manufacturing an image display apparatus that includes a plurality of CMOS thin film transistors with the step of non-selectively doping regions of a thin film corresponding to both p-type and n-type transistors with p-type impurities combined with the step of selectively doping regions corresponding to the n-type transistors with additional p-type impurities;
 - Claims 28, 30-32, 34-35 are allowed because the prior art of record does not teach or suggest, in combination with the other claim limitations, a CMOS device that features p-type thin film transistors with channel regions that have a uniform distribution of p-type impurities in a thickness direction of their corresponding active semiconductor layer and n-type thin film transistors with channel regions that have a higher concentration of p-type impurities than the p-type channel regions such that their distribution of p-type impurities has a peak near a surface of their corresponding active semiconductor layer; and
 - Claims 29, 33 are allowed because the prior art of record does not teach or suggest, in combination with the other claim limitations, a CMOS device that features p-type thin film transistors with channel regions that have a broadly changing distribution of p-type impurities in a thickness direction of their

corresponding active semiconductor layer and n-type thin film transistors with channel regions that have a higher concentration of p-type impurities than the p-type channel regions such that their distribution of p-type impurities has a peak near a surface of their corresponding active semiconductor layer.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen W. Smoot whose telephone number is 571-272-1698. The examiner can normally be reached on M-F (8:00 am to 4:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Whitehead, Jr. can be reached on 571-272-1702. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SWS